Well Baby Care

Gerren Perry, M.D.

Assistant Professor of Family Medicine

Georgetown University School of Medicine

Providence Hospital Family Practice Residency Program

Objectives

- Complete an appropriate preventive health history and physical on children age 0 months to 2 years
- Describe the appropriate developmental milestones for infants age 0 months to 2 years

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- List the required immunizations for infants age 0 months to 2 years
- List the appropriate screening tests required for children age 0 months to 2 years
- Describe the appropriate anticipatory guidance for infants age 0 months to 2 years

Why do we do well child care?

 Delivery of important preventive services like immunizations

 Address concerns of developmental and behavioral issues Promotion of healthy life styles

Provision of anticipatory guidance

General Statistics

 Infant mortality has declined by more than 90% from 1915 to 1997 (100/1000 live births to 7.2/1000 live births

 Major advances in public health, social welfare and medical efforts radically reduced deaths from infectious diseases The use of antibiotics, fluid and electrolyte replacement therapy and routine vaccinations also had a huge impact

 Despite the advances in health care, racial and financial disparities still exists Poorer children or children of African-American or Hispanic heritage have poorer health overall

 Over 12 million children live in poverty in the US and the numbers are increasing

- 7 percent of all children live in extreme poverty in the US
- These children are more likely to have a low birth weight, be hospitalized during childhood, experience hunger and malnutrition, experience delays in their development and are more likely to drop out of school and be unemployed

- Well child care visits provide an opportunity to impact the health of a child
- There is much controversy over the number of well child care visits we need, however no clinically important differences were observed in the varying schools of thought

 The American Academy of Pediatrics and the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) child health program has made recommendations for a comprehensive package of preventive health care for children

- If one uses the EPSDT Toolkit, each well child care visit has a specific pre-printed form to be filled out in place of a progress note
- The forms are available for free at the following web site:

www.ihcs.msu.edu/EPSDT/Toolkit_Contents.h tm

- Whether one uses these available forms or not, the information that needs to be collected at well child visits could be summarized in the following subcategories:
 - History/ROS
 - Physical
 - Screening
 - Anticipatory guidance
 - Immunizations
 - Plan

Initial visit

- This usually occurs 2-3 days after discharge from the hospital, with a follow up weight check visit at 2 weeks depending on circumstances
- The initial visit at 2-3 days is recommended because the physician can detect abnormalities in the earlier days of life

 Document nutrition intake: is infant breast or bottle fed, document the formula type and amount of intake in ounces or minutes nursing and time intervals. Review adequacy of supply of nutrition- WIC or ISS

 A good guide for normal intake is 2-4 ounces every 2-4 hours until 1-2 months or on demand for breast fed infants

 Breast fed infants should nurse on each breast for each feeding to prevent engorgement and unequal breast milk production

 A good rule of thumb is 10-15 minutes on the first breast and 10-15 min on the second breast

 If the infant falls asleep before the second breast, start the next feeding session on that breast

- Next, review infant's bowel movement and urine output habits
- Breast fed babies often have seed like mustard colored BM's with each feeding. They can sometimes be "explosive" and soil clothing- this is normal for BFB

Formula fed babies often have less BMs

- They are usually more formed and can occur as infrequently as once per week
- Anything longer than once per week should be addressed and a number of remedies are available

- Some include adding 1 tsp of Karo Syrup to 2-4 ounces of formula, or taking ½-1 oz of prune juice each day in older infants
- Whenever there are other constitutional symptoms, poor weight gain or a distended abdomen, with constipation a further w/u is needed

- Next, Review sleep habits: newborns sleep up to 16 hours per day
- They should always sleep on their backs on a firm mattress with no pillow to prevent risk of SIDS
- Also inform parents on crib safety and not using antique, substandard cribs for their infants

Initial visit- Physical Exam

- The vital signs should be reviewed. This includes plotting height, weight and head circumference on the graphs that are sex dependent
- The physical exam should involve undressing the infant completely and doing an examination from head to toe: pay close attention to hips, fontanels,genitalia, heart sounds and eye exams

Initial visit- Screening

- Assess hearing screens at this time, check for response to loud or soft sounds
- Assess vision both by observation and parental report
- Screen for developmental milestones: looking at faces initially, by one month: tight grasp, following to midline and raising head from prone position, alerts to sound

Initial visit-screening

- Remember to screen mothers for symptoms and risk factors for post-partum depression at this time, it commonly occurs at 4-6 weeks post partum
- Common symptoms: weight loss, sleeplessness, ambivalence toward infant, inability to care for infant
- Risk factors: age under 20, unmarried, poor relationship with partner, medically indigent, economically challenged

Initial Visit- Anticipatory guidance

 Initial anticipatory guidance should focus on basic information for taking care of a newborns

- Important issues to cover are:
 - Safety: car seat usage, smoking, smoke detectors, crib safety, baths and water temperature <120 degrees, child proofing home

Initial visit- Anticipatory guidance

- Nutrition: formula amounts, breast milk, weight gain, colic and crying
- Health: thermometer use, fever, no bottle in bed, shaken baby syndrome, signs of illness, cord and circumcision care

Initial visit- Anticipatory Guidance

 Social/Behavioral: Baby's temperament, talking and singing to baby, console baby, child care, family planning and postpartum care for mother

Initial visit-Immunizations

- They should have received the hepatitis B vaccine in the hospital, if not they can receive it now and return for a 2 month check up.
- If the infant is 6 weeks at the initial visit then they can receive the Pediarix: combo of Dtap, polio and hepatitis B, along w/prevnar and Hib vaccines

The 2 month visit-History/ROS

- At this visit, you review concerns of the parents, review nutritional status, urine and bowel habits
- Feedings usually taper to about 4-6 oz every 4-6 hours, although some infants will still feed every 2-3 hours

The 2 month visit-History/ROS

- Review sleep patterns: usually sleeping for four hour periods at this age
- Address any new concerns at this point as well and perform a complete, unclothed physical exam- again with emphasis on hip exam, neurological exam and genitalia

The 2 month visit- Screening

- A developmental history should be recorded. Infants should be able to:
 - Hold head in midline, lift chest off table, follow objects past midline
 - Smile socially, recognize parent

The 2 month visit- Screening

- We should also continue to screen mothers for post-partum depression at this visit as well because it can present at this late stage
- Continue to screen for hearing and vision development

The 2 month visit-Anticipatory Guidance

- Some key anticipatory guidance points are:
 - Safety: car seat, smoking and detectors, plastic bags
 - Nutrition: delay solid foods, colic, crying, Vit D
 - Health: continue to sleep on back
 - Social: time out for parents, talking and singing to infant, parent support groups

The 2 month visit-Anticipatory Guidance

- Additionally, reinforce never to leave baby alone because they can roll over or fall off of tables and chairs in their car seats
- Also remind parents they can give acetominophen for discomfort from the vaccines at this time

The 2 month visit-Immunizations

- Immunizations given here are:
 - Pediarix which is the DTaP, HebB, IPV combo
 - Hib
 - Prevnar
- The next visit is a 4 month check up

The 4 month visit-History/ROS

- Much of the same history is gathered here as you did in the 2 month check up
- One key thing is to document reactions to vaccines- fever, restlessness
- Additionally, sleeping may be up to 4-6 hour intervals and feedings should increase in amount but decrease in frequency

The 4 month visit- Screening

- Key developmental milestones at this visit are:
 - Supporting forearms in prone position, rolling over, holding hands open at rest, responding to visual threat, reaching with arms in unison, bringing hands to midline, laughing and orienting to voices
 - If the infant is 4- 5 months and cannot hold a rattle or roll over a Denver Developmental Screening Test should be done

The 4 month visit- Screening

- Remember to check for hearing and vision development.
- Infants should respond to sound and fix and follow objects with eyes

The 4 month visit-Anticipatory Guidance

- Some key points for anticipatory guidance are:
 - Safety: same as 2 month visit, child proofing, poison control
 - Nutrition: adding rice cereal to diet, using a spoon to feed cereal and not adding it to a bottle, introducing a single food item at a time, avoiding honey
 - Health: cleaning teeth with a wash cloth, and avoiding second hand smoke
 - Social: child care, communicating with baby, parent support

The 4 month visit-Immunizations

Immunizations are Pediarix, Hib and prevnar

 Follow up in 2 months for a 6 month check up

The 6 month visit-History/ROS

- Review nutrition, urine out put, bowel habits and sleep patterns. Infants can sleep up to 8 hours at a time by now
- A complete physical exam should be done emphasizing growth, and developmental milestones

The 6 month visit- Screening

- Developmental milestones at this point are:
 - Shyness with strangers, feeding self crackers, turning to voices, sitting alone and no head lag when pulled to sitting, putting feet into mouth when supine, transferring objects, babbling, recognizing that someone is a stranger
- Screen for vision and hearing development
- Some states require lead screening at this age as well

The 6 month visit-Anticipatory Guidance

- Some key guidance issues are:
 - Safety: choking hazard, car seats, no baby walker, child proof home
 - Nutritional: using a cup, introducing solids, decreasing milk to 8oz every 5 hours, avoiding small, hard foods, only water in the bottle at bed time
 - Health: teething, fluoride, passive smoke
 - Social: play, read and sing with infant, bedtime routine, distraction for discipline, opportunities to explore

The 6 month visit-Immunizations

 Immunizations are Pediarix, Hib, Prevnar

- Do a lead level if positive risk factors
- Follow up in 3 months for a 9 month check-up

The 9 month visit

- Mostly for developmental assessment, growth and anticipatory guidance
- Key milestones are:
 - Crawling, pulling to stand, cruising, immature pincer grasp, probing with forefinger, holding bottle, throwing objects, wave bye, saying mama/dada, understands "no", exploring surroundings

The 9 month visit- Screening

- Vision, hearing, lead and anemia in some states
- No immunizations should be needed at this visit
- Follow up in 3 months for the 12 month check up

The 9 month visit-Anticipatory Guidance

- Key anticipatory guidance issues are:
 - Safety: choking, car seat, child proof kitchen esp.
 - Nutrition: finger foods, supervise eating
 - Health: brushing teeth and poison control contacts
 - Social: stranger anxiety, limit but enforcing rules, pat-a cake, peek a boo games, music

The 12 month visit

- Again for developmental assessment and growth and anticipatory guidance
- Some key developmental milestones are:
 - Ability to separate from parents, pincer grasp, specific mama/dada, 1-3 other words, standing alone, may be walking alone, comes when called, imitates actions

The 12 month visitscreening

- Again screen for hearing and vision
- Screen for lead and anemia (required)
- Screen for tuberculosis in some states

The 12 month visit-Anticipatory Guidance

- Key anticipatory guidance topics are:
 - Safety: appropriate car seat, lead risk and exposure, lower crib mattress
 - Nutrition:phasing out bottles, switching to whole milk, healthy food choices, limiting juice to <8 oz
 - Health: dental hygiene, bed bottles
 - Social: routines, behavior, discipline, delaying toilet training, praise

The 12 month visit-Immunizations

- Immunizations are:
 - MMR
 - Hib
 - Varicella
 - Prevnar
- A lead test and HCT should be done as well
- TB skin testing depending on risk factors
- Follow up in 3 months for 15 month checkup

The 15 month visit-18 month

- Key developmental milestones are:
 - Creeps up stairs, walks backwards, by 18 monthsruns and throws objects without falling
 - Scribbles in imitation, builds tower of two blocks in imitation, by 18 mos- turns 2-3 pages
 - Uses 4-6 words, follows one-step commands without gesture, by 18 mos.- knows 5 body parts and 7-10 words
 - Uses spoon and cup, by 18 mos- can play with other children

The 15-18 month visit-Anticipatory Guidance

- Key anticipatory guidance topics are:
 - Nutrition: phasing out bottle, self-feeding, no forced foods
 - Social: discipline techniques, time outs, temper tantrums, toilet training, providing variation in toys for motor development, wearing proper shoes

The 15-18 month visit

- Important immunizations are:
 - Dtap
 - Some may delay Prevnar to this visit
- Follow up visit should be done at age 24 months for growth and developmental assessment

References

- Nevin, J and Witt, Deborah, "Well child and preventive care", Primary Care Clinics in Office Practice, Vol 29 No 3 Sept 2002
- The Maryland Healthy Kids Program, 2000
- Institute for Health Care Studies, MSU, in collaboration with EPSDT medicaid and AAP, web site: www.ihcs.msu.edu, 2003
- The John's Hopkins Handbook: The Harriet Lane Handbook 16th edition, Mosby, 2002
- Amerigroup Maryland, Inc, July 200, website:www.amerigroupcorp.com